

## ABSTRACT

A method for look-ahead load pre-fetching that reduces the effects of instruction stalls caused by high latency instructions. Look-ahead load pre-  
5 fetch is accomplished by searching an instruction stream for load memory instructions while the instruction stream is stalled waiting for completion of a previous instruction in the instruction stream. A pre-fetch operation is issued for each load memory  
10 instruction found. The pre-fetch operations cause data for the corresponding load memory instructions to be copied to a cache, thereby avoiding long latencies in the subsequent execution of the load memory instructions.